

Patent Claims

1. A waveguide filter formed from a substrate (S), which is coated on the upper face with a structured metallic layer (TM) and one or more metallic striplines (ML1, ML2), and from a component (FB), with the component (FB) being fitted to the upper face of the substrate (S) and with one side wall of the waveguide filter being formed by the structured metallic layer (TM) of the substrate (S), and with the other side walls of the waveguide filter being formed by the component (FB), and with the waveguide filter having input and output points for coupling the electromagnetic waves carried in the stripline (ML1, ML2) to the waveguide filter, and vice versa.
2. The waveguide filter as claimed in claim 1, characterized in that the component (FB) is a surface mounted device.
3. The waveguide filter as claimed in claim 2, characterized in that the component (FB) has a circumferential web (ST) which rests on the structured metallic layer (TM) on the upper face of the substrate (S).
4. The waveguide filter as claimed in one of the preceding claims, characterized in that the cross section of the component (FB) is chosen in accordance with the predeterminable filter characteristics of the waveguide filter (HF).
5. The waveguide filter as claimed in one of the preceding claims, characterized in that that side wall of the component (S) which is opposite the upper face of the substrate (S) has a structure

(SK) which can be predetermined for the appropriate filter characteristics.

- 5 6. The waveguide filter as claimed in one of the preceding claims, characterized in that the at least one stripline (ML1, ML2) which is provided on the upper face of the substrate projects into the waveguide filter.
- 10 7. The waveguide filter as claimed in one of the preceding claims, characterized in that the substrate (S) has rear-face metallization (RM) on the lower face.
- 15 8. The waveguide filter as claimed in one of the preceding claims, characterized in that the component (FB) and the substrate (S) are conductively connected, in particular being soldered or conductively adhesively bonded.
- 20 9. The waveguide filter as claimed in one of the preceding claims, characterized in that the component (FB) has a conductive surface.
- 25 10. Use of a waveguide filter as claimed in one of the preceding claims in a transmitting/receiving arrangement for a communication and/or radar application.